

USEFUL FORMULAS

TO FIND	DO THIS
Circumference of circle	Multiply diameter by 3.1416
Area of a circle	Multiply radius by itself; multiply result by 3.1416
Area of a triangle	Multiply base by half the height
Speed of a driven shaft	Multiply diameter of driving pulley by its speed; divide by dia. of driven pulley
Diameter of driving pulley	Multiply diameter of driven pulley by its desired speed; divide by speed of driving pulley

PIPE SIZES

NOMINAL SIZE	INSIDE OIA.	OUTSIDE OIA.
1/8"	17/64"	13/32"
1/4"	23/64"	35/64"
3/8"	1/2"	43/64"
1/2"	5/8"	27/32"
3/4"	53/64"	13/64"
1"	13/64"	15/16"
1 1/4"	13/8"	121/32"
1 1/2"	13/64"	129/32"
2"	2 1/16"	23/8"
2 1/2"	2 15/32"	27/8"

SHEET-METAL THICKNESS

(Inch, decimals and nearest fractions)

GAUGE NO.	UNCOATED CARBON AND LOW-ALLOY STEEL*	ALUMINUM, BRASS AND COPPER
28	.015 (1/64)	.012
26	.018	.016 (1/64)
24	.024	.020
22	.030	.025
20	.036 (1/32)	.032 (1/32)
18	.048 (3/64)	.040
16	.060 (1/16)	.051
14	.075 (5/64)	.064 (1/16)
12	.105 (7/64)	.081 (5/64)

* Galvanized and other coated steel slightly thicker

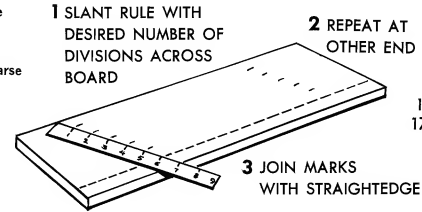
COATED-ABRASIVE GRIT SIZES

	GARNET, ALUMINUM OXIDE, OR SILICON CARBIDE	EMERY	FLINT
VERY FINE	600, 500		
	400	(10/6)	
	360		
	320	(9/6)	
	280	(9/6)	
	240	(7/6)	
FINE	220	(5/6)	
	180	(5/6)	3/6 Ex. fine
	150	(4/6)	3/6
	120	(3/6)	0 Fine
MEDIUM	100	(3/6)	1/2
	80	(0)	1 Medium
	60	(1/2)	1 1/2
COARSE	50	(1)	2
	40	(1 1/2)	2 1/2 Coarse
	36	(2)	
	30	(2 1/2)	3 Ex. coarse
	24	(3)	
	20	(3 1/2)	
	16	(4)	
	12	(4 1/2)	

LUMBER MEASURE

SIZE (INCHES)	LENGTH IN FEET				
	10	12	14	16	18
1 by 2	1 2/3	2	2 1/3	2 2/3	3
1 by 3	2 1/2	3	3 1/2	4	4 1/2
1 by 4	3 1/3	4	4 2/3	5 1/3	6
1 by 6	5	6	7	8	9
1 by 8	6 2/3	8	9 1/3	10 2/3	12
1 by 10	8 1/3	10	11 2/3	13 1/3	15
1 by 12	10	12	14	16	18
2 by 4	6 2/3	8	9 1/3	10 2/3	12
2 by 6	10	12	14	16	18
2 by 8	13 1/3	16	18 2/3	21 1/3	24
2 by 10	16 2/3	20	23 1/3	26 2/3	30
2 by 12	20	24	28	32	36
3 by 10	25	30	35	40	45
3 by 12	30	36	42	48	54
4 by 4	13 1/3	16	18 2/3	21 1/3	24
6 by 6	30	36	42	48	54

DIVIDING A BOARD INTO EQUAL PARTS



DRILL GRINDING GAUGE

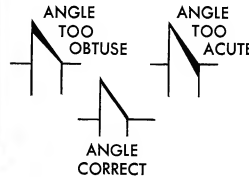
CHECK BOTH LIP ANGLES HERE

COMPARE TWO LIP LENGTHS HERE

TURN DRILL; COMPARE CLEARANCE ANGLES

PLACE DRILL HERE

WOOD-CHISEL GRINDING GAUGE



PLACE CHISEL HERE

PROTRACTOR CENTER

ALIGN THIS EDGE • MARK CENTER • MARK ANGLE TOP OR SIDES